Section 10

OROFACIAL PAIN

Orofacial pain is a relatively common symptom. Sources of orofacial pain include caries, periodontitis, neuropathic, and musculoskeletal conditions. Symptoms of pain may represent different phases of acute or chronic conditions. Based on NHIS data from 1989, survey participants representing 39 million adults reported experiencing at least one of five orofacial pain symptoms in the past 6 months: tooth pain, mouth sores, jaw joint pain, facial pain, and burning mouth (Lipton et al., 1993). Orofacial pain is often divided into two categories—chronic and acute. The National Center for Health Statistics generally uses a cutoff point of 3 months to distinguish between acute and chronic pain. Currently, there are no national data on orofacial pain for children. Data sources other than the 1989 NHIS include studies on a population of elderly adults (65+) living in 10 northern Florida counties (Riley et al., 1998); studies of adults 45 and older, also located in northern Florida (Gilbert et al., 1997); a survey of adults in Toronto (Locker & Grushka, 1987); and studies on temporomandibular joint disorder, or TMD, reviewed by LeResche (1997).

This section examines chronic and acute orofacial pain.

REFERENCES

Gilbert GH, Duncan RP, Heft MW, Dolan TA, Vogel WB. Oral disadvantage among dentate adults. Community Dent Oral Epidemiol 1997;25:301-13.

LeResche L. Epidemiology of temporomandibular disorders: implications for the investigation of etiologic factors. Crit Rev Oral Biol Med 1997;8:291-305.

Lipton JA, Ship JA, Larach-Robinson D. Estimated prevalence and distribution of reported orofacial pain in the United States. J Am Dent Assoc 1993:124:115.

Locker D, Grushka M. The impact of dental and facial pain. J Dent Res 1987;66:1414-17.

Riley JL 3rd, Gilbert GH, Heft MW. Orofacial pain symptom prevalence: selective sex differences in the elderly? Pain 1998;76:97-104.

10.1 Chronic orofacial pain

The cost of chronic pain is estimated to be about \$80 billion per year, with as much as 40% associated with orofacial pain (Israel & Scrivani, 2000; Friction & Schiffman, 1995). The two most prevalent sources of chronic orofacial pain are temporomandibular joint disorder (TMD) and burning mouth syndrome. TMD consists of jaw joint pain and dull facial pain in the temporomandibular joint and the muscles of mastication. Chronic TMD is estimated to affect from 3% to 12% of the U.S. population (Klausner, 1995). Burning mouth syndrome is characterized as a burning, tender, or annoying sensation in the mouth with no apparent mucosal lesion. In 1989, the prevalence of jaw joint pain, burning mouth, and dull facial pain in the U.S. population was 5.3%, 0.7%, and 1.5%, respectively.

SOURCE OF DATA

The analyses reported here are based on the 1989 National Health Interview Survey Orofacial Pain Supplement, National Center for Health Statistics, Centers for Disease Control and Prevention. The only national data available for burning mouth and dull facial pain are presented despite their very low prevalences.

Jaw joint pain was more common in

- Younger adults (Figure 10.1.1).
- Females (Figure 10.1.2).
- Adults living below the federal poverty level (Figure 10.1.3).

Burning mouth and dull facial pain

Displayed little variation among age groups and were slightly more common among females (Figures 10.1.1 and 10.1.2).

Bullets reference data that can be found in Table 10.1.1.

REFERENCES

Friction JR, Schiffman E. Epidemiology of temporomandibular disorders. In: Friction JR, Dubner R, eds. Orofacial pain and temporomandibular disorders. New York: Raven Press; 1995:1-14.

Israel HA, Scrivani SJ. The interdisciplinary approach to oral, facial and head pain. J Am Dent Assoc 2000;131:919-26.

Klausner JJ. Epidemiologic studies reveal trends in temporomandibular pain and dysfunction. J Mass Dent Soc 1995;4:21-5.

8 7 6.7 6.6 6 5.5 5 4.5 Percent 4.1 3.9 4 3 2 1.7 1.7 1.6 0.9 0.7 0.7 1 0.7 0.7 0.6 0 20-24 25-34 35-44 45-54 55-64 65 and Older Age Jaw Joint Pain Burning Mouth

Figure 10.1.1. Percentage of adults aged 20 and older with chronic orofacial pain by age group

Data source: 1989 National Health Interview Survey Orofacial Pain Supplement, National Center for Health Statistics, Centers for Disease Control and Prevention.

Dull Facial Pain

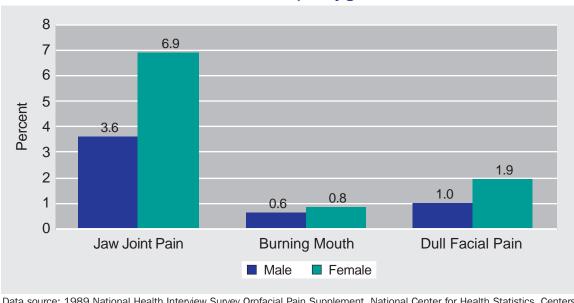
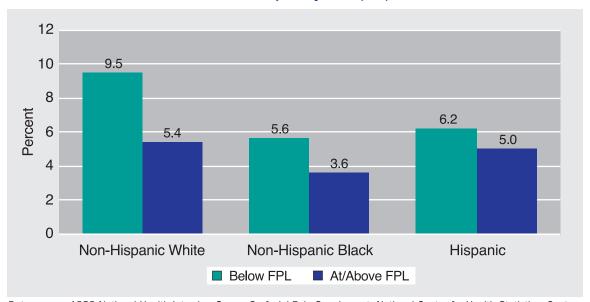


Figure 10.1.2. Percentage of adults aged 20 and older with chronic orofacial pain by gender

Data source: 1989 National Health Interview Survey Orofacial Pain Supplement, National Center for Health Statistics, Centers for Disease Control and Prevention.

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Figure 10.1.3. Percentage of adults aged 20 and older with jaw joint pain by race/ethnicity and federal poverty level (FPL)



Data source: 1989 National Health Interview Survey Orofacial Pain Supplement, National Center for Health Statistics, Centers for Disease Control and Prevention.

10.2 Acute orofacial pain

Acute orofacial pain includes tooth pain and painful sores or irritations of the mouth. Tooth pain is often caused by dental caries but may also be due to periodontal disease. Tooth pain can interfere with work and social activities, promote anxiety, and result in economic costs.

Data from the 1989 NHIS Orofacial Pain Supplement indicate that the overall prevalence of tooth pain and of mouth sores in the United States was 13.6% and 8.4%, respectively. Vargas et al. (2000) and Lipton et al. (1993) examined acute orofacial pain using these data. They reported that the prevalence of tooth pain was higher among adults 20 to 64 years of age than among those 65 and older, those with lower education, poorer people, and those who visited a dentist within the past 12 months.

SOURCE OF DATA

The analyses presented here are based on the 1989 National Health Interview Survey Orofacial Pain Supplement, National Center for Health Statistics, Centers for Disease Control and Prevention.

Prevalence of tooth pain (Figures 10.2.1 and 10.2.2)

- Was higher among younger adults, those living below the federal poverty level, and those with less than 12 years of education.
- Was lower among non-Hispanic whites than non-Hispanic blacks and Hispanics.

Prevalence of mouth sores (Figure 10.2.3)

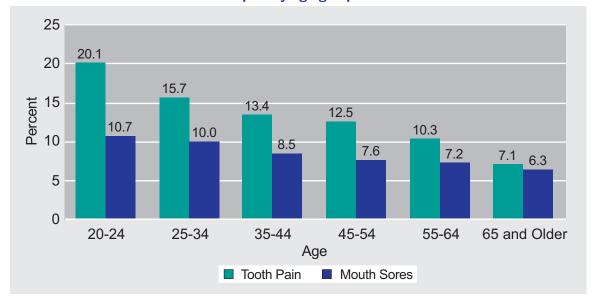
Was higher among those with more than 12 years of education and among non-Hispanic whites and Hispanics compared to non-Hispanic blacks. Bullets reference data that can be found in Table 10.2.1.

REFERENCES

Lipton JA, Ship JA, Larach-Robinson D. Estimated prevalence and distribution of reported orofacial pain in the United States. J Am Dent Assoc 1993;124:115-21.

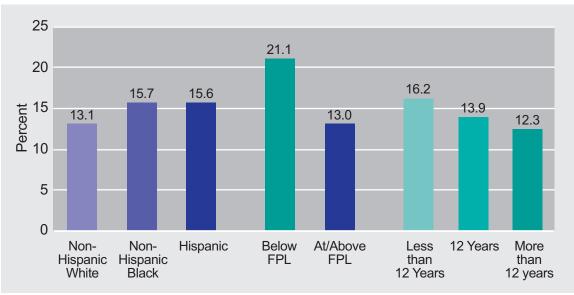
Vargas CM, Macek MD, Marcus SE. Sociodemographic correlates of tooth pain among adults: United States, 1989. Pain 2000;85:87-92.

Figure 10.2.1. Percentage of adults aged 20 and older with acute orofacial pain by age group



Data source: 1989 National Health Interview Survey Orofacial Pain Supplement, National Center for Health Statistics, Centers for Disease Control and Prevention.

Figure 10.2.2. Percentage of adults aged 20 and older with tooth pain by race/ethnicity, federal poverty level (FPL), and education

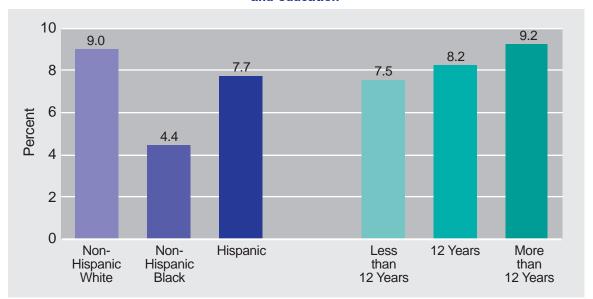


Data source: 1989 National Health Interview Survey Orofacial Pain Supplement, National Center for Health Statistics, Centers for Disease Control and Prevention.

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Figure 10.2.3. Percentage of adults aged 20 and older with mouth sores by race/ethnicity and education



Data source: 1989 National Health Interview Survey Orofacial Pain Supplement, National Center for Health Statistics, Centers for Disease Control and Prevention.